

## Patent Claims

1. Method for the operation of electric lighting means, especially of a gas discharge lamp, e.g., of an UV low-pressure tube, characterized by the following features:

a) the characteristic data for the individual lighting means with respect to the decrease in the light output or radiation output are stored in an electronic storage depending on the total operating duration of the lighting means,

b) the respective individual operating duration of the individual lighting means in question is measured and added to the preceding individual operating durations in order to obtain the total operating duration of the individual lighting means in question, and

c) the electric output to be supplied to the lighting means at a given time is automatically adjusted depending on the stored characteristic data with respect to the decrease in light output and radiation output and the respective total operating duration of the individual lighting means in question for obtaining a predetermined light output or radiation output, e.g., a light output or radiation output remaining at least approximately constant.

2. Method for the operation of electric lighting means, especially of a gas discharge lamp, e.g., of an UV low-pressure tube, characterized by the following features:

a) the light output or radiation output actually emitted by the lighting means at a given time is measured and

compared with a predetermined value for the light output or radiation output, and

b) the electric output to be supplied to the lighting means is automatically adjusted depending on the results of the comparison of the actually emitted light output or radiation output and the predetermined light output or radiation output such that a predetermined value of the light output or radiation output of the lighting means is obtained.

3. Method according to claim 1, characterized in that, in case the lighting means are a gas discharge tube, relevant data of the ballast device which is to be used/which is used will be/are stored in the electronic storage in addition to the characteristic data with respect to the decrease in the light output or radiation output of the gas discharge tube.

4. Method according to claim 1, characterized in that the electric output to be supplied to the lighting means is adjusted in such a way that it is smaller by a certain fraction, for example, about 10% smaller, than the electric nominal output of the lighting means.

5. Method according to claim 1, characterized in that, in case the lighting means are a gas discharge tube, the control signals required for adjusting the respective electric output to be emitted at the gas discharge tube are supplied in digital form to the ballast device associated with the gas discharge tube.

6. Method according to claim 1, characterized in that, in case the lighting means are a gas discharge tube, the control signals required for adjusting the respective electric output to be emitted at the gas discharge tube are supplied in analog form to the ballast device associated with the gas discharge tube.

7. Method according to claim 4 or 5, characterized in that the control signals are current-modulated.

8. Method according to claim 4 or 5, characterized in that the control signals are voltage-modulated.

9. Method according to claim 4 or 5, characterized in that the control signals are frequency-modulated.

10. Circuit arrangement for carrying out the method according to claim 1, characterized by electric or electronic controlling means located in the circuit of the lighting means for adjusting an electric output to be supplied to the lighting means for the purpose of obtaining a predetermined light output or radiation output of the lighting means, e.g., a light output or radiation output remaining at least approximately constant, within predetermined limits, and by at least one sensor which is associated with the lighting means and which is sensitive to light or radiation emitted by the lighting means and which is provided for purposes of automatic

adjustment of the electric output to be supplied to the lighting means for the emission of signals controlling the electric or electronic controlling means and which is electrically connected with the controlling means.

11. Circuit arrangement for carrying out the method according to claim 1, characterized by electric or electronic controlling means containing a storage for characteristic data of the lighting means and located in the circuit of the lighting means for adjusting an electric output to be supplied to the lighting means for the purpose of obtaining a predetermined light output or radiation output of the lighting means, e.g., a light output or radiation output remaining at least approximately constant, within predetermined limits, and by time-measuring means for the total operating duration of the lighting means, which time-measuring means are associated with the lighting means which are electrically connected with the above-mentioned controlling means for the purpose of adjusting the electric output to be supplied to the lighting means in dependence on the total operating duration of the lighting means.

12. Circuit arrangement according to claim 11, characterized in that, in case the lighting means are a gas discharge tube, the electric or electronic controlling means comprise, apart from an electronic processor, a storage receiving characteristic data of the gas discharge lamp, and

time-measuring means, an electronic ballast device with adjustable output power.

13. Circuit arrangement according to claim 12, characterized in that the electronic ballast device is designed for processing control signals which contain, in the form of a frequency, the information pertaining to the electric output to be supplied to the gas discharge lamp.

14. Circuit arrangement according to claim 12, characterized in that the electronic ballast device is designed for processing control signals which contain, in the form of a voltage, the information pertaining to the electric output to be supplied to the gas discharge lamp.

15. Circuit arrangement according to claim 12, characterized in that the electronic ballast device is designed for processing control signals which contain, in the form of a current, the information pertaining to the electric output to be supplied to the gas discharge lamp.

16. Circuit arrangement according to claim 11, characterized in that the time-measuring means for the total operating duration of the lighting means are connected with adjusting means for the initialization of the time measurement.

17. Circuit arrangement according to claim 15, characterized in that the adjusting means can be manually actuated for the initialization of the time measurement.

18. Circuit arrangement according to claim 15, characterized in that the adjusting means for the initialization of the time measurement are arranged adjacent to lighting means which are fastened or can be fastened in an enclosure or the like and the adjusting means can be actuated together with a movement of the lighting means into the enclosure or out of the enclosure or the like.

19. Circuit arrangement according to claim 11, characterized in that the controlling means for the adjustment of the electric output to be supplied to the lighting means and/or the time-measuring means associated with the lighting means are connected with an optic and/or acoustic signal device for signaling the given total operating duration achieved by the lighting means.